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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MIODRAG POTKONJAK

Appeal 2016-008373
Application 12/541,940
Technology Center 3700

Before LISA M. GUIJT, PAUL J. KORNICZKY, and BRENT M. DOUGAL *Administrative Patent Judges*.

KORNICZKY, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant Miodrag Potkonjak[1] appeals under 35 U.S.C. § 134(a) from the Examiner's decision, as set forth in the Final Office Action dated August 7, 2015 ("Final Act."), rejecting claims 1, 2, 5–9, 11–17, and 19–21 under 35 U.S.C. § 101 because the claimed invention is directed to patent ineligible subject matter: an abstract idea of a method of organizing human activity.[2] We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

THE CLAIMED SUBJECT MATTER

The claims are directed to a "cyber-physical game." Spec. 1. Claims 1, 8, and 16 are the independent claims on appeal. Claim 1, reproduced below, is illustrative of the claimed subject matter:

> 1. A method for modeling an actual sports game involving a first player in a cyber-physical game involving a second player with a computing device, the method comprising:
>
> receiving, by the computing device, a first set of data collected by one or more sensors in a first game space from the actual sports game at a first time as the actual sports game is being played in the first game space, wherein the first set of data is associated with a first set of events in the actual sports game, and the first set of data include at least one of a first environmental condition, a first movement data, and a first acceleration data in the actual sports game;
>
> generating, by the computing device, a first modeled event in the cyber-physical game based on the first set of data and a first objective associated with the first modeled event;

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[1] Appellant identifies Empire Technology Development LLC as the real party in interest. Appeal Brief, dated February 28, 2016 ("Appeal Br."), at 3.

[2] Claims 3, 4, 10, 18, and 22 are cancelled. Appeal Br. 13–18 (Claims App.).

receiving, by the computing device, a second set of data as the cyber-physical game is being played in a second game space, wherein the second set of data include at least one of a second environment condition, a second movement data, and a second acceleration data in the cyber-physical game;

evaluating, by the computing device, the second set of data in view of the first objective to generate a score and to determine whether to continue the cyber-physical game as the actual sports game is being played; and

if the cyber-physical game is determined to be continued,

receiving, by the computing device, a third set of data collected by the one or more sensors in the first game space from the actual sports game at a second time, wherein the third set of data is associated with a second set of events in the actual sports game, and the third set of data include at least one of a third environment condition, a third movement data, and a third acceleration data in the actual sports game; and

generating, by the computing device, a second modeled event in the cyber-physical game based on the third set of data and a second objective associated with the second modeled event, wherein the second time is later than the first time, and the first set of events and the second set of events are not continuous in the actual sports game, wherein no modeled event in the cyber-physical game is generated based on data collected by the one or more sensors in the first game space from the actual sports game between the first time and the second time.

DISCUSSION

Appellant presents arguments specifically addressing independent claim 1. Appeal Br. 7–12. Other than arguing that independent claims 8 and 16 recite substantially similar elements as claim 1 and claims 2, 5–7, 9, 11–15, 17, and 19–21 depend from independent claims 1, 8, and 16, Appellant does not present separate arguments regarding these claims. Thus, claims 2,

5–9, 11–17, and 19–21 stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(iv).

The Supreme Court set forth a "framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts." *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2355 (2014) (citing *Mayo Collaborative Servs. v. Prometheus Labs, Inc.*, 132 S. Ct. 1289, 1294 (2012)). According to the Supreme Court's framework, the first step is to determine whether the claims at issue are directed to one of those concepts (i.e., laws of nature, natural phenomena, and abstract ideas). *Id.* If the claims are directed to a patent-ineligible concept, the second step in the analysis to "consider the elements of each claim both individually and 'as an ordered combination' to determine whether the additional elements 'transform the nature of the claim' into a patent-eligible application." *Id.* The Supreme Court characterizes the second step of the analysis as "a search for an 'inventive concept' — i.e., an element or combination of elements that is 'sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself."' *Id.* (alteration in original). To transform an abstract idea into a patent-eligible concept, the claims require "more than simply stating the abstract idea while adding the words 'apply it.'" *Id.* at 2357 (citations omitted).

The First Step in the Alice Analysis

For the first step in the *Alice* analysis, the Examiner finds that independent claim 1 is directed to an abstract idea "in the form of a method of organizing human activity," and specifically to "a method of conducting a

game." Answer, dated July 18, 2016 ("Ans."), at 4–5; *see also* Final Act. 2, 4. The Examiner finds that the claimed method for modeling an actual sports game is similar to the claimed method of managing a bingo game found to be an abstract idea in *Planet Bingo, LLC v. VKGS LLC*, 576 Fed. Appx. 1005, 1007–08 (Fed. Cir. 2014) (non-precedential) and the claimed rules for playing games found to be an abstract idea in *In re Smith*, 815 F.3d 816, 819 (Fed. Cir. 2016). Ans. 4.

Appellant argues that the Examiner's finding is erroneous because "the phrase 'certain method of organizing human activity' is used to describe 'concepts relating to interpersonal and intrapersonal activities'" and "the recited process in claim 1 is not related to interpersonal and intrapersonal activities and should not be equated to mere organizing human activity." Appeal Br. 10. Appellant also suggests that *Planet Bingo* stands for the proposition that only "a game consisting solely of mental steps which can be carried out by a human using pen and paper is patent-ineligible." Reply Brief, dated August 30, 2016 ("Reply Br."), at 7.

According to Appellant, claim 1 "recites a method for modeling an actual sports game with a computing device in a cyber-physical game as the actual sports game is being played." Reply Br. 6. It involves, among other things, receiving a first set of data in a first game space from an actual sports game, generating a first modeled event and a first objective based upon the first set of data, receiving a second set of data in a second game space, and evaluating the second set of data in view of the first objective to generate a score and determine whether to continue the cyber physical game. Appeal Br. 13 (Claims App.). The Federal Circuit has held that claims directed to managing a game of bingo is an abstract idea. *See Planet Bingo*, 576 Fed.

App'x. at 1005. Claim 1 is similarly directed to a method of organizing human activity in the form of managing a game or competition, e.g., determining a score by comparing and evaluating the first and second data.

Appellant also argues that "claim 1 requires the collection of data, the evaluation of the collected data and objectives, and the generation of modeled events at different points in time" (Appeal Br. 11), and human minds are unable to process the data collected by the recited sensors (*id.* at 10–11). However, the Federal Circuit has held that the "concept of data collection, recognition, and storage is undisputably well-known. Indeed, humans have always performed these activities." *Content Extraction and Transmission LLC v. Wells Fargo Bank, Nat. Ass'n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014). "There is no 'inventive concept' in [the] use of a generic scanner and computer to perform well-understood, routine, and conventional activities commonly used in industry." *Id.* at 1348. Like in *Content Extraction*, the data collection and evaluation features of claim 1 are well known and routinely performed by humans. Further, nothing in the claims requires more than computer implementation of well-understood, routine data processing techniques.

In sum, we are not apprised of error in the Examiner's determination that the subject matter of claim 1 constitutes an abstract idea directed to a method of organizing human activity and rules for a game.

The Second Step in the Alice Analysis

For the second step in the *Alice* analysis, the Examiner finds that

> [t]he additional element(s) or combination of elements in the claims other than the abstract idea per se amount to no more

> than: (i) mere instructions to implement the idea on a computer, and/or (ii) recitation of generic computer structure that serves to perform generic computer functions that are well-understood, routine, and conventional activities previously known to the pertinent industry.

Final Act. 3. More specifically, the Examiner finds that the claimed computing device and sensors recited in claim 1 "are generic, well-known, and conventional and thereby do not amount to significantly more than the claimed abstract idea" and "[e]mploying a computer, e.g., to, as claimed, receive data, make some determinations based on that data, then provide an output based on those determinations are all generic, well-known, and conventional functions." *Id.* at 4.

Appellant argues that the Examiner's finding is erroneous for several reasons. First, Appellant argues that "claim 1 is tied to a particular machine" — the recited "computing device" — that transforms the claim into patent-eligible subject matter. Appeal Br. 7. According to Appellant,

> the recited computing device is at least configured to receive two different set of data (i.e., first set of data and second set of data) as two different games (i.e., the actual sports game and cyber-physical game) are being played at two different spaces (i.e., first game space and second game space). In addition, the computing device of claim 1 is also configured to interact with the recited one or more sensors in one game space (e.g., the first game space).

Id.

We agree with the Examiner that the claimed abstract idea implemented using generic computing devices (e.g., computers) and sensors "is not sufficient to save the patent under the machine prong of the machine-or-transformation test." Ans. 3 (citing *Ultramercial v. Hulu*, 772 F.3d 709,

716–17 (Fed. Cir. 2014)). The elements of a "computing device" and "sensors" as recited in claim 1 are generic components that are well-understood, routine, and conventional in the computer industry. These elements function in a conventional manner to execute program instructions and operations. *See Alice*, 134 S. Ct. at 2359–60 (holding patent-ineligible claims that "amount to nothing significantly more than an instruction to apply the abstract idea . . . using some unspecified, generic computer" and in which "each step does no more than require a generic computer to perform generic computer functions") (internal quotations marks, citation omitted). The fact that these generic computer functions are applied to a particular game is not sufficient to circumvent the prohibition against patenting an abstract idea. *See Bilski v. Kappos*, 561 U.S. 593, 610–11 (2010).

Second, Appellant argues that "the recited transformation from the different sets of collected data to the different modeled events is sufficient to transform the process recited in claim 1 into a patent-eligible application." Appeal Br. 8. We agree with the Examiner that claim 1 uses generic sensors to capture electronic input data, and then use a conventional computing device to generate output data and evaluate that data and make certain decisions based upon that input data. In *Ultramercial*, the Federal Circuit held that "[a]ny [data] transformation from the use of computers or the transfer of content between computers is merely what computers do and does not change the [machine or transformation test] analysis." Ans. 6 (citing *Ultramercial*, 772 F.3d at 717). In other words, transforming electronic data is simply what general purpose computers do when they execute computer programs.

Third, Appellant argues that, when claims 1, 8, and 16 are considered as an "ordered combination," the use of a conventional sensor or computing device is patent eligible because the claims include a "physical transformation." Appeal Br. 9–10. As discussed above, the claimed abstract idea implemented using generic computing devices (e.g., computers) and sensors is not saved by the machine-or-transformation test.

Fourth, Appellant argues that at least one feature of claim 1 "is an improvement to computer functionality" and is not "directed an abstract idea." Reply Br. 6 (citing *Enfish LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335–36 (Fed. Cir. 2016). Appellant argues that

> while the data in the first game space from the actual sports game is collected by one or more sensors between the first time and the second time, the recited computing device does not generate any modeled event in the cyber-physical game based on the collected data within this specific time period. By not further processing a specific set of data collected in the specific time frame (e.g., between the first time and the second time) and generating a modeled event according to the specific set of data, the claim covers an novel approach of facilitating the interactions between the events from the actual sports game occurring in the first game space and the modeled events generated by the computing device in the second game space. Intelligently managing data in different game spaces is clearly an improvement in the field of computer gaming technologies. In addition, by not indiscriminately processing the data (e.g., at least one of a first environmental condition, a first movement data, and a first acceleration data in the actual sports game) collected by the one or more sensors to generate modeled events, the recited computing device instead intelligently allocates the limited resources within the specific time frame, further improving the functionality of the computing device. These improvements to computer functionality itself should not be downplayed, and therefore, claim 1 is not directed to an abstract idea.

Reply Br. 6–7.

We disagree. Neither the Specification (*see*, e.g., Spec. ¶¶ 35–46) nor claim 1 purport to improve the functioning of the computer system itself or overcome a problem arising in the realm of computer networks. The problem with which the claims are concerned is the management and "modeling" of a cyber-game. Claim 1 merely applies rules for a cyber-game, using generic computers and sensors. *See, e.g.,* Spec. ¶¶ 35–46. In our view, there is no indication that the elements recited in the claims produce "an improvement to computer functionality itself." *Enfish*, 822 F.3d at 1336.

Appellant's arguments do not persuasively identify any error in the Examiner's conclusion that the claims do not amount to anything more than implementation of the abstract idea on a general purpose computer. In sum, we are not apprised of error in the Examiner's determination that the elements of claim 1, both individually and as an ordered combination, transform the nature of the claim into a patent-eligible application.

For the reasons above, the Examiner's rejection of claim 1 is sustained. Claims 2, 5–9, 11–17, and 19–21 fall with claim 1.

DECISION

For the above reasons, the Examiner's rejection of claims 1, 2, 5–9, 11–17, and 19–21 under 35 U.S.C. § 101 is AFFIRMED.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED